

AMENDMENTS TO THE CLAIMS

claims 1-10 (canceled)

5 Claim 11 (previously presented): A hetero-junction bipolar junction transistor (HBT) comprising:

a substrate;

a dielectric layer formed on a predetermined region of the substrate;

10 an opening formed in the dielectric layer, and a portion of the substrate being exposed;

a SiGe epitaxial layer formed on a sidewall and a bottom of the opening, and extending outside the opening and above the dielectric layer;

15 a spacer formed on the SiGe epitaxial layer to define a self-aligned emitter region in the opening; and

20 an emitter conductivity layer being filled into the self-aligned emitter region, and a PN junction being formed between the emitter conductivity layer and the SiGe epitaxial layer.

Claim 12 (original): The hetero-junction bipolar junction transistor of claim 11 wherein the substrate
25 is a silicon substrate.

Claim 13 (original): The hetero-junction bipolar junction transistor of claim 11 wherein the substrate is a non-selective epitaxial silicon substrate.

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Claim 14 (original): The hetero-junction bipolar junction transistor of claim 11 further comprising a

self-align d silicide (salicide) layer formed on the emitter conductivity layer.

Claim 15 (original): The hetero-junction bipolar
5 junction transistor of claim 11 further comprising a selective implant collector (SIC) region formed in the substrate beneath the SiGe epitaxial layer.

Claims 16-17 (canceled)

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